## TWO NEW GOANNAS FROM AUSTRALIA

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During my stay at the Western Australian Museum, Perth. in January and February, 1957, I had the opportunity to study the very remarkable collection of Goannas of that Institution, most of them collected in the north-western part of Western Australia (Wotjulum, West Kimberley). Among that material there is a good series of Varanus mertensi (from which the Queensland Varanus bulliwallah cannot be separated as a species) and also of Varanus a. acanthurus. Further, there are two specimens of Varanus glebopalma known until today only from the type specimen and apparently related to prasinus from Papua. Finally, I found several specimens belonging to the timorensis-group. These received my special attention as they indicate that a revision of the arrangement of the timorensis "Rassenkreis," proposed in 1942, is necessary. I had supposed that timorensis has four vicarious sub-species (timorensis, orientalis, sealaris and tristis), but I am surprised to find that at Wotjulum, besides scalaris (type locality: Beagle Bay Mission), there is living not only a form of tristis but still another well defined Goanna of the same relationship to be described below. It is regarded as a sub-species of timorensis as it seems to be most nearly related to the orientalis race of timorensis. On the other hand, I now regard both tristis (with the subspecies also to be named as new) and scalaris as full species; of both several specimens have been found at Wotjulum. Whilst a more extensive paper on Australian Goannas, based on the materials studied in Australia, is planned, the two new forms are described below.

Varanus (Odatria) timorensis glauerti subsp. nov.

Diagnosis: A Goanna of the "Rassenkreis" timorensis, nearest related to orientalis but the head more pointed. Scales smaller. Supraoculars very small, very different from the large interoculars. 147 to 152 scales around the body. A very distinct white temporal stripe. The throat and chest without any pattern and this is the case also in the belly of the one adult specimen examined. Tail with pale and dark rings.

Type: 3 ad. WAM R.12337, Wotjulum, West Kimberley, Western Australia; A. M. Douglas l. 1956. Paratype: juv. WAM R.11207, same locality; K. G. Buller l. 1954.

Description of the type: Form of the body as in orientalis, the head more pointed. Nostrils roundish, a bit nearer to the tip of the snout than to the eyc. Scales on upper surface of the head very small, on the upper surface of the snout only a little larger than on the head. Interparietals slightly enlarged. Supraoculars not differentiated, very small, smaller than the interoculars (injured in the type specimen). Scales of the neck smaller than the scales of the back, tectiform like those, not keeled; also the scales on

the legs are hardly to be ealled keeled. 56 seales aeross the head between the angles of the mouth; 147 seales around the body and 77 eross rows of reetangular seales from the gular fold to a line eonneeting the anterior border of the thighs. Spiny postanal seales present but no preanal pore. Seales of the tail small, without any tendency to be spiny. 72 seales on the tenth tail ring; eaudal seales flat, smooth, then teetiform and only becoming keeled in the posterior half of the tail. First seale rings on the tail complete, but irregular on the (incomplete) posterior half of the tail. Upper surface of the head black, but supraciliary region whitish. A distinet white temporal stripe extending from the lower border of the eye to the anterior upper border of the tympanum and a little beyond. Back very dark, obviously due to preservation; hut there is a perceptible faded pattern consisting of large spots (occlli) arranged in transverse rows. Upper surface of the fore legs black, on the hind legs numerous oeelli arranged in transverse rows. Entire lower surface of the body white without any pattern, on the side of the neek distinctly separated from the dark colour of the back. Tail with pale and dark bands extending also to the underside and therefore forming rings. The pale rings on the upper side of the base of the tail are dissolved into occili; the dark rings eonsist on the undersides of the tail of four seale rows, the pale rings of three. Seales on the undersides of the hands, feet, fingers and toes dark pigmented.

Notes on the Paratype: Like the type, but nostrils equi-distant from tip of the snout and anterior border of the eye; supraoeulars still smaller and strietly separated from the three to four rows of large interoeulars. 58 seales across the head between the angles of the mouth. 152 seales around the body and about 80 cross rows of ventrals. On the back of this also not too well preserved specimen, large oval pale spots in cross rows are perceptible. The white temporal stripe very distinct. The tail has 36 black and 36 white rings. On the basal part of the tail, the black rings are divided incompletely by secondary white ones. On the underside, throat, chest and central part of the belly are white, but on the sides of the belly there are some few black transverse lines.

Measurements (in mm.) of type (R.12337), followed by paratype (R.11207): Head and body length, 170; 79. Tail length, ?; 150. Head length, 32; 18. Head width, 20; 9. Head depth, 12; 6. Snout length, 16; 9. Anterior border of ear to posterior angle of eye, 16; 9. Tip of snout to anterior border of nostril, 6; 4. Posterior border of nostril to anterior angle of eye, 7; 4. Fore leg, 54; 23. Hind leg, 75; 29. For remarks of the measurements eompare Mertens, 1942: 5, 6. Unfortunately, the head of the type (a mature male) is heavily injured; therefore, the measurements are only approximate.

Relations: This Goanna may be distinguished from *Varanus* timorensis orientalis to which it is most nearly related by its more pointed head, the supraoeulars more sharply distinct from the

interoculars, more numerous and smaller scales (147 to 152 around the body against 110 to 121 in orientalis), the distinct white temporal stripe, and probably more intensive ring pattern on the tail. From Varanus scalaris, glauerti may be distinguished by the more pointed head, relatively longer legs, smaller seales, heavier contrast between supra- and interocular scales, and the completely different pattern. Varanus tristis centralis, a form also living at Wotjulum, differs from glauerti, not only by its larger dorsal scales, but, above all, by the very rough scalations on the tail which is almost spiny. In scalaris also, the seales are distinctly rougher than in glauerti. Further, the colour pattern in tristis differs from that of glauerti in that young specimens already have dark spots and transverse stripes on the belly.

Derivation of the name: This Goanna is named in honour of Mr. L. Glauert, who during the many years of his activity as Director of the Western Australian Museum, Perth, has brought together an extremely good collection of the Western Australian fauna. Both the author and his fellow traveller, Dr. H. Felten, are expressing in this manner their gratitude for the help and assistance given on a large scale during the time they were working at this Museum.

## Varanus (Odatria) tristis centralis subsp. nov.

Diagnosis: Like the typical tristis, but with pale oeelli on the upper surface of the body arranged in cross rows which may be separated by pale cross lines.

Type: & ad. SMF.11632; Hermannsburg, Finke River, Central Australia, M. v. Leonhardi l. 1908. Paratypes & ad. and 1 juv. SMF. 11631, 11633 from the same locality and collector.

Remarks on the type: The type has been pictured as *Varanus timorensis tristis* in Mertens, 1942, pl. 7, fig. 33; pl. 14, fig. 78, and pl. 16, fig. 101. There can also be found on pp. 305 to 306 the numbers of seales and measurements of the type and the paratypes.

Relations: The typical form of tristis (type locality: Swan River), living especially in the south-western part of Australia, is in old specimens nearly uniformly coloured blackish brown or black and has, at most, some small faded yellowish spots or hardly visible yellowish net lines on the upper surface of the body. The eontrast, by striking ocellar pattern, is made by centralis living in Central Australia, but the area it inhabits reaches to Western and North-Western Australia. Odatria punctata Gray, 1838 (nec Varanus punctatus Merrem, 1820) from Sharks Bay doubtless represents the new sub-species centralis which also occurs at Wotjulum but perhaps has not quite the typical pattern of the Central Australian specimens.

Abbreviations: WAM, Western Australian Museum, Perth. SMF: Senckenberg Museum, Frankfurt, a.M.

## LITERATURE

Mertens, R.: Die Familie der Warane (Varanidae). Abh. Senckenb. naturf. Ges., 462, 465, 466. Frankfurt a.M., 1942.